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Thomson, Gillian and Feeley, Claire

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# How to manage pain during childbirth: what the research says

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There are many ways to control pain. Ken Tackett/Shutterstock.com

## Authors

**Gill Thomson**
Professor in Perinatal Health, University of Central Lancashire

**Claire Feeley**
Postdoctoral Research Associate, University of Central Lancashire

Women have always used different methods to try and reduce pain during childbirth. Over the years these methods have included inhaling opiates, a warm compress, magical charms and even sprinkling animal dung in a hot drink.

Anaesthesia started to be used in childbirth in the 1800s, typically involving ether or chloroform. Today, drugs such as nitrous oxide (gas and air), epidurals and pethidine are regularly used during labour.

Epidural is the most comprehensive option, a type of anaesthetic that is injected into the back, numbing the nerves that carry the pain impulses. Pethidine is injected into the thigh or buttock. It works as more of a relaxant, by mimicking the natural endorphins it reduces the transmission of pain signals sent by the nerves to the brain.

While natural "mind-body" methods (such as massage) have been used for aeons, in recent years more sophisticated strategies such as controlled breathing techniques, immersion in water and self-

hypnosis have emerged. These methods started to be more actively promoted in the US and parts of Europe from the 1990s.

These two groups of pain relief methods (pharmacological and non-pharmacological) have different purposes. Anaesthesia aims to relieve labour pain, whereas natural methods aim to help women cope with it. But what does the research say about women's experiences of pain relief and whether – and in what circumstances – these various relief methods actually work?

## One size doesn't fit all

In general, discussions of childbirth often centre on the pain women experience during labour and birth, and rightly so, as how women are supported to cope or manage labour pain makes a difference to the immediate experience of childbirth and has a long-lasting impact on women's wellbeing. But women's needs and preferences for how to manage pain during childbirth differs.

Some women plan to use some form of anaesthesia as they want to feel in control during labour and to have a pain-free birth. They might make this decision during pregnancy, either because of a previous positive experience of medications or a negative experience of an un-medicated birth, or for first-time mums, a fear of "unbearable pain".

Other women make the decision to use anaesthesia after labour has started, usually at a critical point where they feel out of control, exhausted and unable to cope with the pain. As the women in these situations are more likely to express feelings of guilt and failure, this is an area where more support and care is needed.

Women who choose mind-body methods usually want a vaginal, intervention-free birth. This decision tends to be made during pregnancy, and some preparation is usually undertaken, such as attending a hypnobirthing antenatal class. However, it is important to note that natural methods are not always promoted, offered or made possible by maternity care providers.

A pregnant woman having contractions. ChameleonsEye/Shutterstock.com

## The evidence

Pharmacological and non-pharmacological methods, when they meet women's needs, can help women feel relaxed, calm, in control and even more energised during labour.

Experiments have found that anaesthesia, particularly an epidural, can be effective in reducing labour pains.

But not all the evidence is positive. Some women continue to experience pain after an epidural has been administered, referred to as "breakthrough pain". Epidurals can also slow down a woman's labour and can lead to further interventions such as delivery using forceps or ventouse (a suction device).

Other popular forms of anaesthesia such as gas and air, pethidine or remifentanil have also been found to cause side effects such as dizziness and nausea. Over the last decade or so, there have been developments in "patient-controlled" anaesthesia, with women able to push a button to receive doses of pain relief (such as remifentanil) as needed. Further studies into whether and how this method impacts on women's experiences of pain relief, and how it compares to other forms of anaesthesia, are needed.

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Natural methods also have a mixed evidence base. Experiments have found immersion in water, relaxation, acupuncture and massage can provide better satisfaction with pain relief, and some

methods (relaxation and acupuncture) can lead to less interventions (such as forceps or caesarean births). In qualitative research, some women found natural methods less effective in helping them to cope with their labour pain, and some mind-body methods such as hypnosis, mindfulness and aromatherapy need more evidence.

An interesting difference between the different types of pain relief is that when effective, anaesthesia can enable women to feel more connected with others in the birth room, whereas mind-body methods enable women to feel more connected to their bodily responses. It is also important to note that being relieved of pain, does not necessarily equate with satisfaction. A positive, satisfying birth is linked to women feeling safe, supported and respected regardless of their pain relief preferences.

## What matters most

It is important to acknowledge that women's experiences of pain are influenced by the relationships with their caregivers. When women are able to form a trusting relationship with their caregiver, they report more positive experiences of birth overall, regardless of the pain relief method used.

If women do not feel supported, this can cause stress and distress. A lack of positive relationships or support from maternity care providers may increase the likelihood of a traumatic birth experience.

Women need to have timely access to information about different pain-management methods, including the risks and benefits of each approach so that an informed decision can be made. Assumptions should also not be made regarding women's ethnicity, class, ability or disability. Research shows that women who face more complex issues can be further disadvantaged during childbirth, and are at greater risk of disrespectful care practices. Doctors and midwives must be attuned to their potential biases to ensure all women receive equitable care.

Most of all, understanding and supporting individual needs is essential to safe, respectful and dignified maternity care.

Childbirth Pain Pain relief Anaesthesia hypnobirthing